

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
11 March 2004 (11.03.2004)

PCT

(10) International Publication Number
WO 2004/020981 A3

(51) International Patent Classification⁷: **G01N 33/53**,
C12Q 1/00, A61K 38/00

(21) International Application Number:
PCT/US2003/027370

(22) International Filing Date: 30 August 2003 (30.08.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/407,385 30 August 2002 (30.08.2002) US

(71) Applicant (for all designated States except US): **RIGEL
PHARMACEUTICALS, INC.** [US/US]; 1180 Veterans
Blvd., South San Francisco, CA 94080 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **MASUDA, Esteban**
[CO/US]; 232 Oakhurst Place, Menlo Park, CA 94025
(US).

(74) Agent: **KEDDIE, James, S.**; Bozicevic, Field & Francis
LLP, 1900 University Avenue, Suite 200, East Palo Alto,
CA 94303 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,
SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the international search report:
9 December 2004

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: METHODS OF SCREENING CYCLIC PEPTIDES AND IDENTIFYING TARGETS THEREFOR

(57) Abstract: The present invention provides compositions and methods for identifying candidate compounds capable of altering a phenotype of a cell that mediate their activity by binding with a specific chaperone of interest. Also provided are methods and compositions for identifying the target of the candidate compound-chaperone complex. Figure (1) provides a cartoon illustrating the principles of the invention.

WO 2004/020981 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/27370

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G01N 33/53; C12Q 1/00; AG1K 38/00
US CL : 435/7.1, 7.2, 4; 530/317, 300

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 435/7.1, 7.2, 4; 530/317, 300

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
WEST/NPL: cyclic peptides, phenotype, chaperone, unknown sequence

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
T, "&"	DATABASE DERWENT ACC. NO. 2004-269269, WO 2004020981 A2 (MASUDA, E.) 11 March 2004 (11.03.2004), see entire abstract (abstract only).	1-44
A	US 5,447,852 A (FRIEDMAN et al) 05 September 1995 (05.09.1995), see entire document.	1-44

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

12 August 2004 (12.08.2004)

Date of mailing of the international search report

27 AUG 2004

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 872-9306

Authorized officer

Louise N. Leary

Telephone No. (571) 272-1600